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DOCUMENTS SECTION

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MARE ISLAND, VALLEJO, CALIF.

1 May 1948

Committee on Artificial Limbs
National Research Council
2101 Constitution Avenue
Washington, D.C.

april

MONTHLY REPORT OF THE EXPERIMENTAL WORK AT THE ARTIFICIAL
LIMB SHOP, MARE ISLAND NAVAL HOSPITAL

The job classification for an engineer has not been returned from the Area Wage and Classification Office.

The following projects are being worked on:

1. Functional Ankle Joint:

At the present time we are installing functional ankle joints routinely on all leg prostheses. The latest design of the ankle joint is functioning well on a case, and the amputee states that he can tell no difference as far as the action is concerned over the old type. The new type appears to be simpler in design and better cosmetically, and the rubber bumper being in one block should stand up better under wear and tear.

2. Suction Socket:

Work is continuing on the suction socket for all types of stumps.

3. Cineplastic Arms:

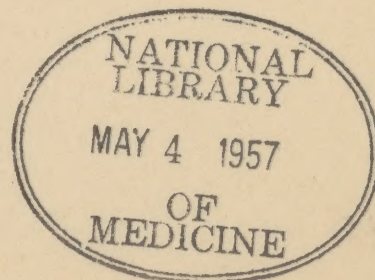
No new prostheses have been made in the past month.

4. Pronator-Supinator for Above Elbow:

Units being field tested are working well and the amputees wearing them state they are learning more uses for the Pronator-Supinator from day to day.

5. Robinson Hand Cosmetic Glove:

The latest mechanical design of the Robinson hand is far superior in grip, We have recently built in an angle of twelve degrees adduction at the wrist part



which allows better use of the hand, especially the working close to the body. This does not affect the cosmetic appearance when worn by an amputee.

6. Soft Bucket and Impression Methods for Below Knee Stumps:

Work is continuing and the reports of field testing are still excellent.

7. Selectron and Fortisan Laminate:

The light shins that have been made are undergoing field testing and no breakdowns have been reported.

8. Tilting Table Prosthesis:

Drafting layouts are completed and the mechanical parts are being built.

9. Functional Joint for Elbow, Wrist and Hips:

The functional elbow joint is working successfully, but we believe an overall smaller dimension of the joint with a lighter spring would be better because it allows less effort of the stump to move the joints and is an improvement from the standpoint of bulk.

10. Forged Aluminum Joints:

There have been no reports of any breakage of these joints that are undergoing field testing.

11. Suction Socket Valves:

The new suction socket valve appears to be satisfactory and we are now using the new small valve in leg cases, especially in the gritti-stokes type where space and size of the valve is critical.

22. Flexible Plastics:

Field testing continues on flexible plastic thigh lacers and biceps cuffs.

13. Nylon Belting:

The nylon belting appears to be superior and the amputees prefer it over the conventional webbing.

14. Parachute Nylon Shroud Cord:

Lacers of this material are now being used routinely and are standing up well in field testing.

15. Functional Knee Joint ;

The functional knee joint which allows rotation has been fitted to an amputee who is able to use it well, and he is being sent to the Prosthetic Division of the University of California for fundamental studies.

16. Wrist Disarticulation Prostheses:

A bilateral wrist disarticulation case has been fitted with a pair of arms featuring plastic buckets, soft liner, and functional elbow joints. This amputee can already perform a great deal more with these arms over his old conventional type. They are lighter and allow full pronation-supination.

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END-1 NH15/P4-4
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U.S. NAVAL HOSPITAL, MARE ISLAND, VALLEJO, CALIF.
1 May 1948

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1. Forwarded.

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